



2019–2020 NTSB

MOST WANTED LIST OF TRANSPORTATION SAFETY IMPROVEMENTS



Require Medical Fitness —Screen for and Treat Obstructive Sleep Apnea

What is the problem?

Undiagnosed and untreated obstructive sleep apnea (OSA)—and the fatigue that results from it—continues to be deadly on our railways. Train operators and other personnel in safety-sensitive positions must be medically fit to operate their trains safely, yet many suffer from inadequately treated OSA.

OSA is a chronic disease in which patients experience episodes of airway obstruction while sleeping, often resulting in fragmented sleep and subsequent daytime sleepiness and fatigue. OSA is more prevalent in train operators than in the general population because railroaders are more likely to be male, older, and obese.

OSA often goes undiagnosed in the transportation environment, which increases the risk that personnel will suffer from fatigue and perform their duties in an unsafe manner.

The absence of regulations in the railroad industry focused on screening for, diagnosing, and ensuring adequate OSA treatment means that employers may be unaware of their employees' impairing medical conditions or medication use. What's more, the industry does not require employees in safety-sensitive positions to be medically evaluated beyond basic vision and hearing testing. This means that we will continue to investigate derailments and collisions resulting from inadequate treatment of OSA and other medical conditions.



On January 4, 2017, a Long Island Rail Road (LIRR) passenger train collided with the platform at the end of track 6 in the Atlantic Terminal in Brooklyn, New York, injuring 108 people. We determined the probable cause of the accident was that the engineer of the train fell asleep due to his chronic fatigue. Contributing to his chronic fatigue was the engineer's severe undiagnosed OSA and the LIRR's failure to initiate OSA screening for safety-sensitive personnel.

7.27%

Railroad employees surveyed
between 2006 and 2009 who
reported having sleep apnea

Source: FRA

9

Rail accidents in
which we cited
OSA as a causal
or contributory
factor between
2000 and 2017

Related reports:

RAB-18/02: Long Island Rail Road Passenger Train Strikes Platform in Atlantic Terminal; Brooklyn, New York; January 4, 2017; Accident ID DCA17FR002

RAB-18/01: New Jersey Transit Train Strikes Wall in Hoboken Terminal; Hoboken, New Jersey; September 29, 2016; Accident ID DCA16MR011

RAR-16/03: Collision of Two Union Pacific Railroad Freight Trains; Hoxie, Arkansas; August 17, 2014; Accident ID DCA14FR011

For detailed investigation reports, visit www.nts.gov

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What can be done?

Rail workers in safety-sensitive positions must be effectively screened, diagnosed, and treated for OSA. Sleepy employees introduce safety risks on our railways. When treated, OSA is not a medically disqualifying condition for transportation operators in safety-sensitive positions.

To address the problem of OSA, the following actions should be taken:

Operators/Industry

- › Medically screen employees in safety-sensitive positions for sleep apnea and other sleep disorders.
- › Collaborate to develop a model national labor agreement that supports effective programs for addressing sleep disorders and other medical conditions among safety-sensitive train-operating personnel.
- › Develop and implement protocols to routinely screen and fully evaluate employees in safety-sensitive positions for sleep disorders, and ensure that such disorders are adequately addressed, if diagnosed.
- › Add any diagnosed sleep disorder to the list of medical conditions that employees in safety-sensitive positions must report. When reported, periodically evaluate the employee to ensure the condition is appropriately treated and the employee is fit for duty.

Regulatory Agencies

- › Provide guidance to operators, transit authorities, and physicians to help them identify and treat individuals at high risk for OSA and other sleep disorders.
- › Enhance medical standards by identifying a list of medical conditions that disqualify employees for safety-sensitive positions because of their condition's potential to negatively affect rail safety.
- › Require more frequent medical certification exams for employees in safety-sensitive positions who have chronic conditions that may impair their job performance.
- › Require railroads to medically screen employees in safety-sensitive positions for sleep apnea and other sleep disorders.



On September 29, 2016, a New Jersey Transit (NJT) train overrode a bumping post at the end of track 5 and struck a wall of the NJT Hoboken Terminal. One person on the passenger platform died; 110 passengers and crewmembers were injured. We determined that the probable cause of the accident was the failure of the train's engineer to stop the train after entering the terminal due to the engineer's fatigue resulting from his severe, undiagnosed OSA.

- › Require railroads to systematically identify and evaluate the safety of medical conditions and medication use among employees in safety-sensitive positions.
- › Develop medical certification regulations for employees in safety-sensitive positions that include, at a minimum, a complete medical history (including specific screening for sleep disorders, a review of current medications, and a thorough physical examination), standard testing protocols across the industry, and central oversight of certification decisions for employees who fail initial testing. Consider requiring that medical exams be performed by those with specific training and certification in evaluating medication use and health issues related to occupational safety on railroads.

Medical Community

- › Ensure that board-certified physicians in internal and family medicine have enhanced and ongoing training that allows them to successfully identify risk factors for, evaluate, and treat OSA in their patients.

Rail Workers

- › Work with your health care providers to ensure your medical conditions are adequately treated and that you are fit for duty.

MWL
MOST WANTED LIST

Critical changes needed
to reduce transportation
accidents, injuries, and
fatalities

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The NTSB **MOST WANTED LIST** highlights safety issues identified from the NTSB's accident investigations to increase awareness about the issues and promote recommended safety solutions.

For more information visit www.ntsb.gov/mostwanted or contact SafetyAdvocacy@ntsb.gov

The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members impacted by major transportation disasters.

National Transportation Safety Board | 490 L'Enfant Plaza, SW | Washington, DC 20594 | (202) 314-6000